

RAIMONDI

The bolted bonnet configuration achieves simultaneously the best performance and the highest safety.

Features

- A rugged body and bonnet design in compliance with ASME B16.34 and BS 1873. Tight shutoff performance is always guaranteed by API 598 testing.
- Valve bodies are produced in various materials and suit NACE requirements.
- Standard plug type disc for globe valves. Ball, guided, parabolic types disc available on request.
- Seat rings are standard available as threaded or welded-in type. Above 12" seats are seal welded as standard.
- Body bonnet gaskets are available as flat, spiral wound and ring joint types.
- Flanged, buttweld or special connections can be manufactured.



Technical data

Pressure ratings	: from ASME 150# to 2500#
Body materials	: carbon, alloy and stainless steels, duplex steels, special alloys
Temperature (°C)	: -60 to + 650
Sizes (mm)	: from 50 to 600 for cl.150-300-600 from 50 to 300 for cl. 900 and above

General application

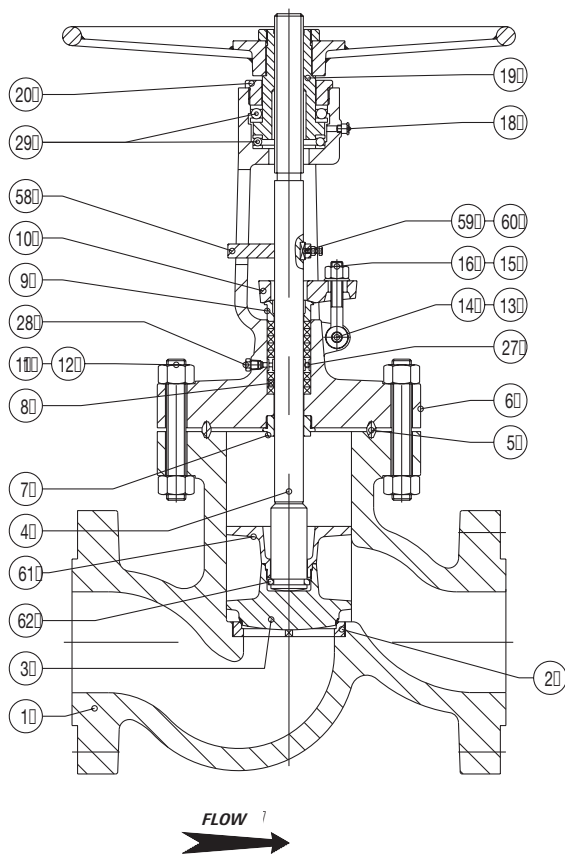
The valves are typically suitable for any on-off and throttling services. These valves are used in: Oil and Gas refining/processing, Chemical and Petrochemical applications, Onshore and Offshore plants, Gas transportation and storage. The Power industry is one of the major markets for Raimondi and large numbers of valves have been installed worldwide.

Connection standards

Flanges	: ASME B16.5
Buttweld	: ASME B16.25

Globe Valves

bolted bonnet configuration



Notes

1. Other materials are available on request. Please consult Supplier.
2. The item 5 (gasket) is supplied in different versions.
Cl. 150 and 300: spiral wound gasket in 316/graphite.
All remaining classes: RTJ in the materials indicated in the B.O.M.
3. The sectional drawing here represented refers to Cl. 600 and larger.
4. Upon request only.

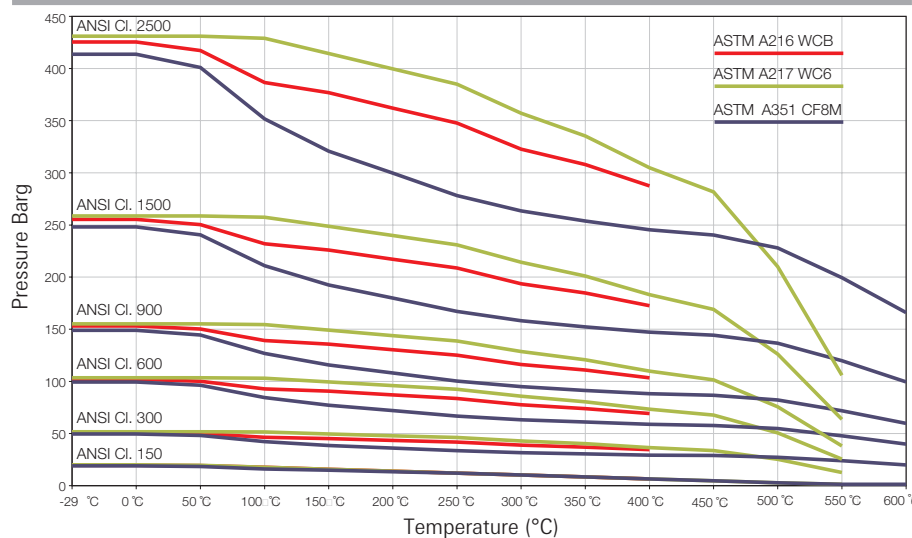
Material selection

Item	Description	Body in WCB	Body in WC6	Body in CF8M
1	Body	A216 WCB	A217 WC6	A351 CF8M
2	Seat Ring	A105 + AWS ER 430	A182 F22 + AWS ER 430	A182 F316
3	Disc	A105 + AWS ER 430	A182 F22 + AWS ER 430	A182 F316
4	Stem	A182 F6a	A182 F6a	A182 F316
5	Gasket	Soft Iron	A182 F5	A182 F316
6	Bonnet	A216 WCB	A217 WC6	A351 CF8M
7	Backseat	A182 F6a	A182 F6a	A182 F316
8	Packing	Flexible graphite inner rings and suitable anti-extrusion rings		
9	Gland	A182 F6a	A182 F6a	A182 F316
10	Gland Flange	A105 or A516 gr. 70	A105 or A516 gr. 70	A182 F316 or A240 Tp. 316
11	Body - Bonnet Bolt	A193 B7	A193 B16	A193 B8M
12	Body - Bonnet Nut	A194 2H	A194 4	A194 8
13	Lug Bolt	A193 B7	A193 B7	A193 B8
14	Lug Nut	A194 2H	A194 2H	A194 8
15	Gland Bolt	A193 B7	A193 B7	A193 B8
16	Gland Nut	A194 2H	A194 2H	A194 8
18	Lubricator	Steel	Steel	Steel
19	Yoke Sleeve	A763 gr. A	A763 gr. A	A763 gr. A
20	Yoke Nut Bushing	A105	A105	A105
27	Lantern (4)	A182 F6a	A182 F6a	A182 F316
28	Drain Plug (4)	Steel	Steel	Stainless Steel
29	Bearings	Steel	Steel	Steel
58	Position Indicator	A516 gr. 70	A516 gr. 70	A516 gr. 70
59	Screw	A193 B7	A193 B7	A193 B7
60	Key	Steel	Steel	Steel
61	Disc Guide	A105	A182 F11	A182 F316
62	Stem Segmental Rings	A182 F6a	A182 F6a	A182 F316

Notes

All Raimondi valves are rated fully in accordance with ASME B16.34. The table here represented indicates the pressure/temperature rating values as per ASME B16.34-1996.

Pressure/temperature ratings in Barg/Psig (ASME B16.34)



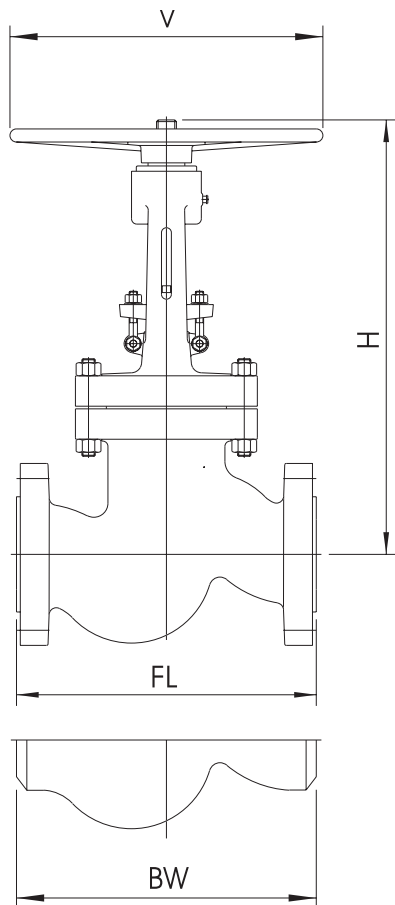
Trim

Trim No	Nominal Trim Symbol	Seal surfaces	Material Type				Small internal parts	Service
			Disc/Wedge surfaces	Stem Hinge pin	Backseat			
1	CR13	13% Cr	13% Cr	13% Cr	13% Cr	13% Cr	General erosive or non-corrosive service between -100°C and 400°C	
2	18-8	304	304	304	304	304	For moderate pressure in non-erosive. Corrosive service between -265°C and 320°C	
3	25-20	310	310	310	310	310	For moderate pressure in corrosive or non corrosive service. Between -265°C and 450°C	
4	SH	Hard 13% Cr	Hard 13% Cr	13% Cr	13% Cr	13% Cr	As trim No 1 but for medium pressure	
5	HF	Co-Cr A	Co-Cr A	13% Cr	13% Cr	13% Cr	High pressure slightly erosive and corrosive service between -265°C and 650°C	
5A	HFNi	Ni-Cr	Ni-Cr	13% Cr	13% Cr	13% Cr	As trim No 5 where Co is not allowed	
6	CR13 Ni-Cu	Ni-Cu	13% Cr	13% Cr	13% Cr	13% Cr	As trim No 1	
7	CR13 SH	Hard 13% Cr	13% Cr	13% Cr	13% Cr	13% Cr	As trim No 1 but for moderate pressure	
8	CR13 HF	Co-Cr A	13% Cr	13% Cr	13% Cr	13% Cr	As trim No 5 for moderate pressure	
8A	CR13 HFNi	Ni-Cr	13% Cr	13% Cr	13% Cr	13% Cr	As trim No 5A for moderate pressure	
9	Ni-Cu	Ni-Cu	Ni-Cu	Ni-Cu	Ni-Cu	Ni-Cu	Very corrosive fluids. Erosive-corrosive service between -240°C and 480°C	
10	18-8SMO	316	316	316	316	316	As trim No 2	
11	Ni-Cu HF	Co-Cr A	Ni-Cu	Ni-Cu	Ni-Cu	Ni-Cu	As trim No 9 but for medium pressure	
12	18-8SMO HF	Co-Cr A	316	316	316	316	As trim No 10 but for medium pressure	
13	Alloy 20	19Cr-29Ni	19Cr-29Ni	19Cr-29Ni	19Cr-29Ni	19Cr-29Ni	Very corrosive service. For moderate pressure between -45°C and 320°C	
14	Alloy 20 HF	Co-Cr A	19Cr-29Ni	19Cr-29Ni	19Cr-29Ni	19Cr-29Ni	As trim No 13 but for medium pressure	

Co-Cr A is equivalent to Stellite 6

Globe Valves

bolted bonnet configuration



Notes

1. All dimensions are in mm.
2. Globe valves in sizes and classes larger than mentioned here are available. Please consult supplier for more information.
3. Dim. H corresponds to the height of valve in open position.
4. BGO stands for "Bevel Gear Operator".
5. W1 corresponds to weight in kilos for flanged body style. For sizes larger than 24", weight depends on flange standards.
6. W2 corresponds to weight in kilos for welding body style.

ASME class 150 (Fig. 3025)

Size	FL	BW	H	V	W1	W2	
							mm
50	2	203	203	335	200	15	13
65	2½	216	216	355	200	25	20
80	3	242	242	375	250	30	25
100	4	292	292	415	300	50	40
125	5	356	356	480	400	75	65
150	6	407	407	500	400	95	85
200	8	496	496	635	575	165	140
250	10	623	623	895	BGO	305	265
300	12	699	699	1215	BGO	425	335
350	14	788	788	1290	BGO	650	515
400	16	915	915	1460	BGO	830	780
450	18	940	940	1550	BGO	1040	970
500	20	978	978	1670	BGO	1260	1170
550	22	-	-	-	BGO	-	-
600	24	1296	1296	1770	BGO	1700	1580

ASME class 300 (Fig. 3031)

FL	BW	H	V	W1	W2
267	267	410	250	30	25
292	292	440	250	40	35
318	318	465	250	55	45
356	356	560	300	85	70
400	400	615	400	120	105
445	445	650	400	135	115
559	559	920	BGO	295	260
623	623	1140	BGO	430	385
711	711	1200	BGO	600	555
825	825	1400	BGO	870	820
953	953	1460	BGO	1150	1080
978	978	1550	BGO	1280	1180
1016	1016	1820	BGO	1450	1270
-	-	-	BGO	-	-
1346	1346	1930	BGO	2750	2430

ASME class 600 (Fig. 3039)

FL	BW	H	V	W1	W2
292	292	445	250	35	30
330	330	495	300	50	40
356	356	540	300	65	50
432	432	580	400	130	110
508	508	650	550	200	160
559	559	805	550	230	175
660	660	1085	BGO	475	380
787	787	1430	BGO	730	600
838	838	1700	BGO	1050	860
-	-	-	BGO	-	-
-	-	-	BGO	-	-
-	-	-	BGO	-	-
-	-	-	BGO	-	-
-	-	-	BGO	-	-

ASME class 900 (Fig. 3045)

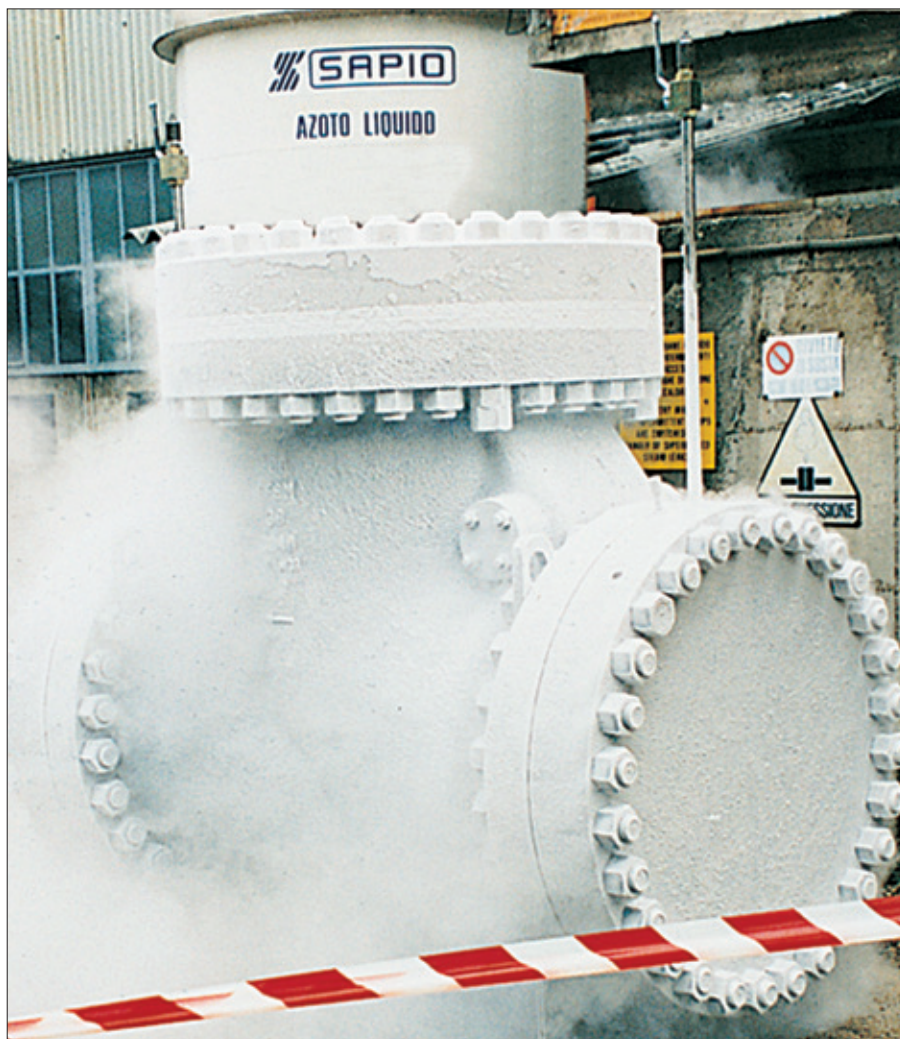
Size	FL	BW	H	V	W1	W2	
							mm
50	2	-	-	-	-	-	
65	2½	-	-	-	-	-	
80	3	381	381	575	400	130	110
100	4	457	457	760	550	200	160
125	5	-	-	-	-	-	-
150	6	610	610	1055	650	455	400
200	8	737	737	1460	BGO	900	680
250	10	838	838	1650	BGO	1400	1135
300	12	965	965	1750	BGO	2150	1900
350	14	1029	1029	1900	BGO	2650	2130
400	16	1130	1130	2010	BGO	3300	2450
450	18	-	-	-	BGO	-	-
500	20	-	-	-	BGO	-	-
550	22	-	-	-	BGO	-	-
600	24	-	-	-	BGO	-	-

ASME class 1500 (Fig. 3051)

FL	BW	H	V	W1	W2
368	368	580	300	95	75
419	419	680	400	135	115
470	470	720	400	180	150
546	546	720	550	255	225
-	-	-	BGO	-	-
705	705	1230	BGO	590	470
832	832	1655	BGO	1170	950
991	991	1705	BGO	1750	1470
1130	1130	1950	BGO	2600	2300
-	-	-	BGO	-	-
-	-	-	BGO	-	-
-	-	-	BGO	-	-
-	-	-	BGO	-	-
-	-	-	BGO	-	-

ASME class 2500 (Fig. 3054)

FL	BW	H	V	W1	W2
451	451	770	500	190	180
508	508	835	575	350	295
578	578	895	650	420	360
673	673	950	750	580	500
-	-	-	BGO	-	-
914	914	1510	BGO	1200	890
1022	1022	1680	BGO	1780	1160
1270	1270	2030	BGO	2500	1600
1422	1422	2250	BGO	3260	1820
-	-	-	BGO	-	-
-	-	-	BGO	-	-
-	-	-	BGO	-	-
-	-	-	BGO	-	-
-	-	-	BGO	-	-



Features

- The range of cryogenic valves is designed in accordance with the requirements of API 600, ASME B16.34 and BS 6364.
- Valve body materials are carefully selected to face the severe conditions of extremely low temperatures: CF8M, CF8 and other very low temperature steels on request.
- In-house testing in accordance with BS 6364 and with the severe requirements of all major oil and gas cryogenic test procedures.
- Double flanged or other special end connections are manufactured.
- Seats are welded in.

Technical data

Pressure ratings	: from ASME# 150 to 900
Body materials	: CF8M, CF8, and other low temperature steels
Temperature (°C)	: down to -254
Sizes (mm)	: 50 to 300 and larger

General application

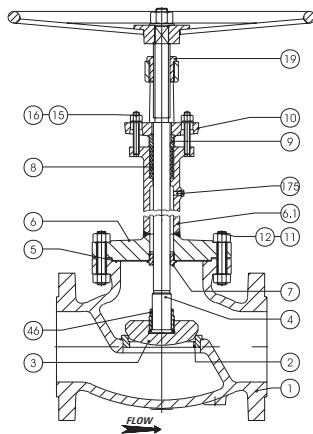
The Raimondi cryogenic valves are widely installed on applications involving media at extremely low temperatures, such as the production, storage and transportation of liquefied natural gas, hydrogen, oxygen, etc.

Connection standards

Flanges	: ASME B16.5
Buttweld	: ASME B16.25

Notes

1. All dimensions are in mm.
2. Globe valves in sizes and classes larger than mentioned here are available. Please consult supplier for more information.
3. Dim. H corresponds to the height of valve in open position.
4. BGO stands for "Bevel Gear Operator".
5. W1 corresponds to weight in kilos for flanged body style. For sizes larger than 24", weight depends on flange standards.
6. W2 corresponds to weight in kilos for welding body style.



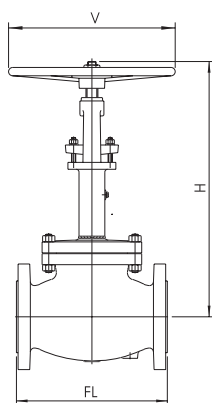
Bolted Bonnet Configuration

Material selection

Item	Description	Body in CF8	Body in CF8M
1	Body	A351 CF8	A351 CF8M
2	Seat Ring	A182 F316 + Stellite	A182 F316 + Stellite
3	Disc	A182 F316 + Stellite	A182 F316 + Stellite
4	Stem	A182 F304	A182 F316
5	Gasket	Spiral wound 316/Graphite	Spiral wound 316/Graphite
6	Bonnet	A351 CF8	A351 CF8M
6.1	Extension Bonnet	A182 F304	A182 F316
7	Backseat	A182 F304	A182 F316
8	Packing	Flexible graphite inner rings and suitable anti-extrusion rings	
9	Gland	A182 F304	A182 F316
10	Gland Flange	A182 F316 or A240 Tp. 316	A182 F316 or A240 Tp. 316
11	Body - Bonnet Bolt	A320 B8	A320 B8M
12	Body - Bonnet Nut	A194 8	A194 8
15	Gland Bolt	A193 B8	A193 B8
16	Gland Nut	A194 8	A194 8
19	Yoke Sleeve	A763 gr. A	A763 gr. A
46	Disc Retaining Nut	A182 F304	A182 F316
175	Relief plug	Stainless Steel	Stainless Steel

Notes

1. All dimensions are in mm.
2. Globe Cryogenic valves in sizes and classes larger than mentioned here are available. Please consult supplier for more information.
3. Dim. H corresponds to the height of valve in open position.
4. BGO stands for "Bevel Gear Operator".
5. "W" corresponds to weight in kilos (flanged body style).



ASME class 150 (Fig. 3025)

ASME class 300 (Fig. 3031)

ASME class 600 (Fig. 3039)

ASME class 900 (Fig. 3045)

mm	Size inch	ASME class 150 (Fig. 3025)				ASME class 300 (Fig. 3031)				ASME class 600 (Fig. 3039)				ASME class 900 (Fig. 3045)			
		FL	H	V	W	FL	H	V	W	FL	H	V	W	FL	H	V	W
50	2	203	935	400	21	267	1010	500	38	292	1045	500	45	-	-	-	-
65	2 1/2	216	955	400	30	292	1040	500	50	330	1095	500	60	-	-	-	-
80	3	242	975	500	45	318	1065	500	65	356	1140	600	80	381	1125	800	145
100	4	292	1215	600	85	356	1360	600	125	432	1380	BGO	175	458	1260	BGO	245
125	5	-	-	BGO	-	-	-	BGO	-	-	-	BGO	-	-	-	BGO	-
150	6	407	1280	BGO	130	445	1380	BGO	180	559	1560	BGO	315	610	1555	BGO	540
200	8	496	1430	BGO	205	559	1520	BGO	340	660	1635	BGO	525	737	2010	BGO	950
250	10	623	1500	BGO	330	623	1740	BGO	480	787	1990	BGO	790	838	2250	BGO	1460
300	12	699	1815	BGO	450	711	1800	BGO	650	838	2200	BGO	1110	965	2350	BGO	2210